

A WONDERFUL JOURNEY TO THE INTERIOR OF THE EARTH.

PROF. LLOYD, A DISTINGUISHED SCIENTIST, WRITES A REMARKABLE BOOK AND PREDICTS ASTONISHING THINGS FOR THE FUTURE.

The most extraordinary combination of science and romance that has been produced for many years is "Etidorhpa," a book written by Prof. John U. Lloyd, of Cincinnati.

Prof. Lloyd is a well-known chemist and writer on chemistry. His present book treats of a journey into the interior of the earth, and involves a large amount of what we should call the supernatural. It explains how split may be separated from matter, and contradicts in a most ingenious and plausible manner many of the best known laws of science. It will be noticed that the title of the book is Aphrodite spelled backward.

Llewellyn Drury, says the story, was sitting in his library on a dreary November night when there appeared to him a strange old man, who had entered without sound.

His hair was white, his beard long, and he had a skin as soft as a baby's. But his most remarkable feature was his forehead, which was of abnormal height.

The stranger told Drury that he was to read to him a manuscript of vast importance to humanity which Drury must agree to publish at the end of thirty years.

In due time he reappeared with his manuscript, which he began to read. Asked who he was, he replied, sadly: "I-Am-the-Man-Who-Did-It."

His manuscript related that in his youth he had made a study of scientific subjects, but had grown dissatisfied with the methods of materialistic science. He was led to the study of the alchemists, whom he found to have known great truths and to be still numerous as a secret order in the world to-day.

He had made considerable progress in his studies when a mysterious letter reached him which instructed him how to enter the alchemistic brotherhood, and urged him to reveal its secrets to the world for the good of mankind. Among other things which the members of the order possessed was an extra faculty by which their minds were able absolutely to dominate matter.

Then he was kidnapped by members of the secret, irresistible and omnipresent brotherhood. They told him that he had been chosen to be instructed in the mysteries of nature. "You will now go in the Valley of the Shadow of Death and learn the mystery of life," was his sentence.

His captors applied certain preparations to his skin and hair which gave him the appearance of a very aged man. This prevented his family and friends from recognizing him, and made him all the more willing to do the bidding of the strange powers.

A guide was assigned to him, and together they journeyed into the cavern fields of Kentucky. They stopped before an archway in the side of a hill, out of which a big stream gushed.

Here the guide told the other they would have to part, as I-Am-the-Man was here to descend into the earth.

At this point he felt a sudden sensation of fear and revolt, and, turning on his guide, exclaimed: "If I am compelled to plunge into this black grave, you shall go with me."

He threw his arms about the adept, intending to hurl him into the chasm, when they were seized from behind in a cold, clammy, irresistible grasp. He turned and found himself confronted by a singular looking being, who quietly said:

"You are not to be destroyed; we wish only to do your bidding."

The speaker was less than five feet in height. His arms and legs were bare, and his skin, the color of light-blue putty, glistened in the sunlight like the slimy hide of a water dog. He raised his head, and the abducted man shuddered in fright as he beheld that the face was not that of a human. His forehead extended in an unbroken plane from crown to cheek-bone, and the tip of an abortive nose, without nostrils, formed a short projection near the centre of the level ridge which represented a countenance. There was no semblance of an eye, for there were no sockets. Yet his voice was singularly perfect.

Realizing that further resistance was impossible, he resigned himself to his new guide, who took his hand and waded with him under the archway until the water rose to their necks. The darkness for a long time was complete, and then the trembling voyager saw one ray of struggling sunshine, which his guide told him was the last of its kind he would see for years. They descended down into the earth.

As they went the explorer noticed that he did not tire. The guide told him that cavern air at that depth possessed an active, gaseous substance which helped to sustain life.

After a while they came into a zone of light. The guide informed the other that what was darkness near the earth's surface at this depth became vivified.

"Man may say," he went on, "the earth casts the amount intercepted by it back into space, and yet does not your science teach that the great bulk of the earth is an absorber, and a poor radiator of light and heat? What think you, I repeat, becomes of the torrent of light and heat and other forces that radiate from the sun, the flood that strikes the earth? It disappears, and, in the economy of nature, is not replaced by any known force or any known motion of matter. Think you that earth substance really presents an obstacle to the passage of the sun's energy? Is it not probable that most of this light producing essence, as a subtle fluid, passes through the surface of the earth and into its interior, as light does through space, and returns thence to the sun again, in a condition not discernible by man?"

I-Am-the-Man noticed that his eyes were closed, and the latter remarked that he was all eyes. "You should reflect," he said, "that man cannot offer a satisfactory explanation of the fact that he can see with his eyes. In one respect these so-called lower creatures (earth worms, etc.) are higher in the scale of life than man is, for they see (appreciate) without eyes. The surfaces of their body really are sources of perception and seats of consciousness. Man must yet learn to see with his skin, taste with his fingers and hear with the surface of his body. The dissected nerve, or pupil of man's eye, offers to the physiologist no explanation of its intrinsic power. Is not man unfortunate to risk so much on so frail an organ?"

They passed through a chamber, along which the explorer saw great pillars capped with umbrella-like covers, reminding him of the common toadstools of upper earth on a magdalen terrace. Instead, however, of the gray or sombre shades to which he had been accustomed, these objects were of various hues and combined the brilliancy of the primary prismatic colors with the purity of clean snow. Now they would stand solitary, like gigantic sentinels; again they would be arranged in rows, the alignment as true as if established by the hair of a transit, forming columnar avenues, and in other situations they were wedged together so as to produce masses, areas in extent, in which the stems became hexagonal by compression.

The columnar stems, larger than his body, were often spiral; again they were marked with diamond-shaped figures, or other regular geometrical forms in relief, beautifully exact, drawn as if by a master's hand in rich and delicately blended colors, on pillars of pure alabaster. Not a few of the stems showed deep crimson, blue, or green, together with other rich colors combined; over which, as delicate as the rarest of lace, would be thrown, in white, an enamel-like intricate tracery, far surpassing in beauty of execution the most exquisite needlework he had ever seen.

There could be no doubt that he was in a forest of colossal fungi, the species of which were more numerous than those of upper earth cryptomantic vegetation. The expanded heads of these great thallozoans were as varied as the stems. Far above their path they spread like beautiful umbrellas, decorated as if by masters from whom the great painters of upper earth might humbly learn the art of mixing colors. Their under surfaces were of many

different designs, and were of as many shapes as it is conceivable could be made of combinations of the circle and hyperbola. Stately and picturesque, silent and immovable as the sphinx, they studied the great cavern singly or in groups, reminding one of a grown child's wild imagination of fairyland.

At the guide's suggestion he smelled and tasted of them. He found them delightful. "Extraordinary!" he mused. "Not at all," said the other. "Should productions of surface earth have a monopoly of Nature's methods, all the flavors, all the perfumes? You may with equal consistency express astonishment at the odors of the fruits of upper earth if you do so at the fragrance of these vegetables, for they are also created of odorless elements."

"But toadstools are foul structures of low organization," interposed the man from the earth. "They are neither animals nor true vegetables, but occupy a station below that of plants proper."

"You are acquainted," replied his guide, "with this order of vegetation under the most unfavorable conditions; out of their native elements these plants degenerate and become then abnormal, often evolving into the poisonous earth fungi known to your woods and fields. Here they grow to perfection. This is their chosen habitat. They absorb from a pure atmosphere the combined foods of plants and animals and during their existence meet no scorching sunrise. They flourish in a region of perfect tranquility and without a tremor, without experiencing the change of a fraction of a degree in temperature, exist for ages."

"Many of these specimens are probably thousands of years old and are still growing; why should they ever die? They have never been disturbed by a breath of moving air and balanced exactly on their succulent pedestal-like stems, surrounded by an atmosphere of dead nitrogen, vapor and other gases, with their roots imbedded in carbonates and minerals, they have food at command, nutrition inexhaustible."

In the time to come, when man deserted the earth's surface, as he would some day be forced to do, as has been the case in frozen planets that are not now inhabited on the outer crust; nations would march through these spaces on their way from



"I felt myself clutched by a powerful hand—a hand as large as that of a man fifty feet in height. I looked about expecting to see a gigantic being, but instead beheld a shrunken pigmy. The whole man seemed but a single hand—a Brobdingnag hand affixed to the body of a Lilliputian."



"I saw by the mellow light great pillars, capped with umbrella-like covers, some of them reminding me of the common toad stool of upper earth on a magnificent scale. I was in a forest of colossal fungi. Far above our path they spread like beautiful umbrellas, decorated as if by masters, from whom the great painters of upper earth might humbly learn the art of mixing colors."

the dreary outside earth to the delights of the salubrious inner sphere.

Here, then, when that day of necessity appeared, these constantly increasing stores of food would be found ready to nourish humanity.

Then they came to a forest of saline incrustations, some of them like human figures. I-Am-the-Man spoke and found that his voice was projected far away from his body.

His next discovery was that he was losing his weight, and that he could jump twenty feet down with hardly any exertion.

The specific gravity of his body had become so little that he could jump twice that distance with impunity. His weight had been reduced in this way to fifty pounds.

When he inquired of their guide the ultimate object of his journey, the eyesless one replied:

"You are to proceed to the Sphere of Rest with me and in safety. Beyond that an Unknown Country lies, into which I never ventured."

"You speak in enigmas. What is this Sphere of Rest? Where is it?"

"Your eyes have never seen anything similar; human philosophy has no conception of it, and I cannot describe it," the guide said. "It is located in the body of the earth, and we will meet it about one thousand miles beyond the North Pole." As they were already twenty-five miles

again, they will have at command whatever they may be an endless source of power, light and heat; mass motion, light and heat being convertible. Motion lies behind heat, light and electricity, and produces them, and so long as the earth revolves on its axis and circles in its orbit man needs no light and heat from such indirect sources as combustion. Men will, however, yet obtain motion of molecules (heat), and material mass motion as well, from earth motion, without the other dangerous intermediate force expressions now deemed necessary in their production."

At this stage of the reading of the manuscript occurred one of numerous interruptions. The venerable stranger proved to the sceptical Drury that water can run up hill when a liquid of greater specific gravity presses on one of less. He also showed him that liquids did not always seek a common level and that they could leave the guide held in solution without evaporating. With two tubes connected by porous paper he proved that a lighter liquid flowed into the heavier one and that the two levels remained different.

To verify one of his statements concerning his underground journey, I-Am-the-Man taught Drury how he could see his own brain. This was done by the simple experiment of gazing into darkness and flashing a candle in front of his eye. This movement produces a counter-irritation of the retina and a figure of the part of the brain that rests against the skull is pictured on the retina. This experiment can be performed by any one and is illustrated in "Etidorhpa."

"The eye is so constituted," explained the stranger, "that light produces an impression on a nervous film in the rear of that organ the impression being carried backward therefrom through a mass of nerve fibres (the optic nerve), and reaching the brain, is recorded on that organ and thus affects the mind. Is it not rational to suppose it possible for this sequence to be reversed? In other words, if the order were reversed could not the same set of nerves carry an impression from behind to the retina, and picture thereon an image of the object which lies anterior thereto, to be again, by reflex action, carried back to the brain, thus bringing the brain substance itself to the view of the mind, and thus impress the senses?"

The description of the underground journey was then resumed. The travellers in the boat reached a bluff, which shone with all the colors of the rainbow and others beyond those known on the earth. Then they came to a place where the lake was contained by a wall, which descended to immeasurable depths.

The eyesless guide here told his companion how volcanoes originated. "The water that rushes down into the chasm, partly as steam, partly as gas, is forced onward and upward through a crevice that leads to the old crater of the presumably extinct but periodically active Mount Epomeo. These gases are intensely heated and they move with fearful velocity. They tear off great masses of stone, which the resultant energy disturbances, pressure, gas and friction reddens with heat."

"The mixture of gases from the decomposed water is in large amount, is burning and exploding, and in this fiery furnace amid such convulsions as have been described, the adjacent earth substance is fused, and even clay is melted, and carried on with the fiery blast. Finally the current reaches the earth's surface through the funnel passage, the apex of which is a volcano—the blast described a volcanic eruption."

Mountains and valleys were caused in the same way, and volcanic waves from the upheaval of the ocean bed. One of the most startling facts which

the guide confided to the traveller was that the earth was not solid. It was not, therefore, in a superheated and molten state at the centre, as many scientists on earth supposed.

"The earth-forming principle consists of an invisible sphere of energy that, spinning through space, supports the space dust which collects on it, as dust on a bubble. By gradual accumulation of substance on that sphere a hollow ball has resulted, on the outer surface of which you have hitherto dwelt. The crust of the earth is comparatively thin, not more than eight hundred miles in average thickness, and is held in position by the central sphere of energy that now exists at a distance about seven hundred miles beneath the ocean level."

"The force inherent to this sphere manifests itself upon the matter which it supports on both sides, rendering matter the lighter the nearer it is to the centre sphere. In other words, let me say to you: The crust, or shell, which I have just described as being but about eight hundred miles in thickness, is firm and solid on both its convex and concave surface, but gradually loses in weight, whether we penetrate from the outer surface toward the centre, or from any point of the inner surface toward the outside, until at the central sphere matter has no weight at all. Do you conceive my meaning?"

The eyesless one told him that science was working on to the separation of spirit from matter. If, as the majority of mankind believed, the spirit force was liberated from the material part of man at his death, why should it not do so during life?

They left the boat and passed onward toward the centre of gravity, which was not in the centre of the earth because the latter is not solid. Here the traveller found that he was ceasing to breathe and could skip for rods without exertion. Human life in this region would last for thousands of years.

After a time they came to a chamber of horrors where the drunkards of inner earth drank forever and ever marvelously intoxicating fluids which grew on fungi.

The chamber was fully a thousand feet in diameter, of great height, and the floor was alive with grotesque beings. Imagination could not depict an abnormal human form that did not present itself. Each abnormal part seemed to be created at the expense of the remainder of the body. To the right the traveller saw a single leg, fully twelve feet in height, surmounted by a ridiculously puny human form which on this leg hopped ridiculously away. He saw close behind the huge limb a great ear attached to a small head and body; then a nose so large that the figure to which it was attached was forced to hold the face upward, in order to prevent the misshapen organ from rubbing on the stony floor.

The guide explained that on earth the minds of drunkards were deformed, here their bodies.

I-Am-the-Man resisted a fearful temptation to drink, whereby he would have become one of these creatures. A picture in Mr. Lloyd's book shows one collection of them, composed almost entirely of fingers pointing the onward way to him.

In company with his guide I-Am-the-Man found himself at perfect rest at a point in a sphere about seven hundred miles below the level of the sea, but more than three thousand from the centre. On this sphere the power of gravitation was concentrated. Here where there was no weight thought-energy became capable of moving and controlling matter.

Within this sphere was the kingdom of Etidorhpa, where the highest form of love ruled everything. Into this I-Am-the-Man was to journey after delivering the present manuscript to Drury.

MEASURING SUNSHINE.

Here's an Instrument Which Catches the Sun's Rays and Registers Them.

Now they are able to measure sunshine. An instrument to note the tiniest ray that strays out from a cloudy sky on a threatening day, and that registers the amount of sunlight that pours in a hot flood from old Sol on torrid August days, has been devised and is doing useful work for the weather, whips all over the country.

It is known as the electric sunshine recorder, and this well describes its purpose. The idea of measuring and recording sunshine electrically was first suggested by D. T. Martin, of the United States Weather Bureau, and afterward developed by Professor C. F. Marvin. The register upon which the record is kept is a brass cylinder, connected with a clock works, and over this cylinder is a sheet of paper upon which are ruled lines marked with the hours and minutes of the day. An automatic pen connected with the sunshine recorder by a fine electrical wire marks the results upon the paper as the cylinder is turned by the clock.

This record is removed at the close of each day, and the weather clerk enters it into his book after telegraphing it, with other weather data, to the main office at Washington.

The importance of the information this little instrument gives may not appeal to the average man except on very hot days. Then it is some satisfaction to be able to tell in figures just how much blistering sunshine has been hovering over the town, burning our noses and drying up the grass in the parks. The sunshine output, however, is a matter of great importance to farmers in the Spring, for all vegetation depends upon it, and a scarcity of sunshine retards crops.

The principle of this mechanism is that of a differential air thermometer in the form of a straight glass tube, with cylindrical bulbs at each end; the whole is enclosed in a projecting glass sheath. Mercury is used to separate the air in the two bulbs, the lower bulbs being coated with lamp black.

The bulbs are filled with pure, dry air and sealed at a temperature of about 5 degrees Fahrenheit, to secure greater density of air. The space between the bulbs and the protecting sheath is perfectly exhausted of air and sealed.

Two electrodes are attached to electric wires connected with the recording instrument in the office, and the recorder itself is placed on the roof where it has free exposure to the sun.

When the instrument is exposed to the direct rays of the sun, the air in the lower bulb expands more than that in the upper bulb, which has no coating of lampblack, to attract the heat rays, and the column of mercury is forced upward and closes the electrical circuit through the fused-in wires.

This circuit passes through wires to the registers, and when the sun is shining short marks at regular intervals are made on the record sheet.

During cloudy weather and at night the mercury retreats toward the blackened bulb and breaks the circuit, and the record on the sheet is then a straight line.



"Near surface earth we passed through caverns filled with creeping reptiles; through others we were surrounded by flying creatures, neither beast nor bird. We passed through passages of ooze and labyrinths of apparently interminable intra-earth structures."